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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number 10/688,439

Filing Date October 16, 2003

First Named Inventor Doan et al.

Art Unit 2812

Examiner Name Unknown

Attorney Docket Number MI22-2416

ENCLOSURES (Check all that apply)

- ☐ Fee Transmittal Form
- ☐ Fee Attached
- ☐ Amendment/Reply
- ☐ After Final
- ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☒ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/Incomplete Application
- ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation
- ☐ Change of Correspondence Address
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- ☐ After Allowance Communication to a Technology Center (TC)
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) (please identify below):
- Return Receipt Postcard; Form PTO-1449; Cited References

Remarks

EV372470863

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENTFirm or Individual Mark S. Matkin, Reg. No. 32,268
Wells St. John, P.S.

Signature

Date

CERTIFICATE OF TRANSMISSION/MAILING

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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 10/688,439
Filing Date October 16, 2003
Inventor Trung Tri Doan et al.
Assignee Micron Technology, Inc.
Group Art Unit 1765
Examiner Unknown
Attorney's Docket No. MI22-2416
Title: Methods of Forming Trench Isolation Regions

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

References –See Attached Form PTO-1449

The Examiner's attention is directed to the reference which is listed on the attached Form PTO-1449, a copy of which are attached. No admission is made regarding whether all the submitted references are prior art.

Citation of the referenced art is respectfully requested.

This Supplemental Information Disclosure Statement is being filed before the mailing date of a first Office Action, whichever occurs last. Therefore, no fee is believed to be required. However, in the event that a fee is required for filing this Supplemental Information Disclosure Statement, please charge the fee specified under 37 C.F.R. § 1.17(p) to Deposit Account No. 23-0925.

Respectfully submitted,

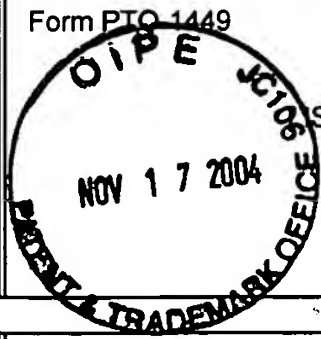
Dated: 11-17-04

By:


Mark S. Matkin

Reg. No. 32,268

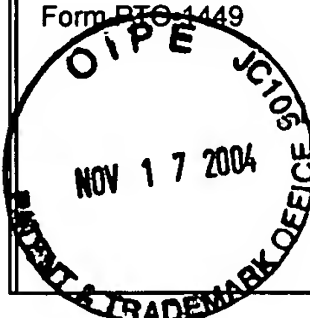
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Form PTO 1449 	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2416	SERIAL NO. 10/688,439
			APPLICANT: Trung Tri Doan et al.	
	LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)		FILING DATE October 16, 2003	GROUP 2812

U.S. PATENT DOCUMENTS							
*Examiner's Initials		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	5,105,253	04/1992	Pollock	357	49	
	AB	5,604,149	02/1997	Paoli et al.	437	67	
	AC	5,616,513	04/1997	Shepard	438	402	
	AD	5,786,263	07/1998	Perera	438	431	
	AE	5,895,255	04/1999	Tsuchiaki	438	427	
	AF	5,923,073	07/1999	Aoki et al.	257	501	
	AG	5,981,354	11/1999	Spikes et al.	438	424	
	AH	5,989,978	11/1999	Peidous	438	436	
	AI	6,033,961	03/2000	Xu et al.	438	295	

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AJ	05-315441	11/1993	Japan			
	AK	06-334031	12/1994	Japan			
	AL	02/27063 A2	4/2002	WIPO (Gordon et al.)			


OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
	AM		Curtis et al, "APCVD TEOS: O3 Advanced Trench Isolation Applications", Semiconductor Fabtech, 9 th Ed., p. 241 - 247
	AN		George, S.M. et al., "Atomic layer controlled deposition of SiO ₂ and Al ₂ O ₃ using ABAB... binary reaction sequence chemistry", Applied Surface Science 82/83, Elsevier Science B.V., July 10, 1994, p. 460-467.
	AO		Morishita et al. "Atomic-layer chemical-vapor-deposition of silicon-nitride", Applied Surface Science 112, Elsevier Science B.V., 1997, p. 198-204.
EXAMINER		DATE CONSIDERED	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

Form PTO-4449 	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2416	SERIAL NO. 10/688,439
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	APPLICANT: Trung Tri Doan et al.		FILING DATE October 16, 2003	

U.S. PATENT DOCUMENTS							
*Examiner's Initials		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	6,090,675	07/2000	Lee et al.	438	301	
	AB	6,171,962	01/2001	Karlsson et al.	438	692	
	AC	6,187,651	02/2001	Oh	438	435	
	AD	6,191,002	02/2001	Koyanagi	438	431	
	AE	6,300,219	10/2001	Doan et al.	438	424	
	AF	6,326,282	12/2001	Park et al.	438	424	
	AG	6,329,266	11/2001	Hwang et al.	438	424	
	AH	6,355,966	03/2002	Trivedi	257	499	
	AI	6,583,060	06/2003	Trivedi	438	700	

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AJ			EV372470863			
	AK						
	AL						

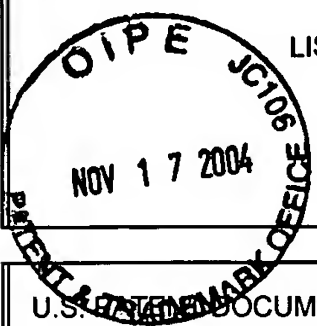
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
	AM		Yokoyama et al. "Atomic layer controlled deposition of silicon nitride and in situ growth observation by infrared reflection absorption spectroscopy", Applied Surface Science 112, Elsevier Science B.V., 1997, p. 75-81.
	AN		Gasser et al., "Quasi-monolayer deposition of silicon dioxide", Elsevier Science S.A., 1994, p. 213-218.
	AO		Shareef et al., "Subatmospheric chemical vapor deposition ozone/TEOS process for SiO ₂ trench filling", J. Vac. Sci. Technol. B 13(4), Jul/Aug 1995, p. 1888-1892.
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*Examiner's Initials		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	6,448,150	09/2002	Tsai et al.	438	427	
	AB	6,617,251	09/2003	Kamath et al.	438	691	
	AC	6,719,012	4/2004	Doan et al.			
	AD	6,583,028	6/2003	Doan et al.			
	AE	6,534,395 B1	10/2001	Werkhoven et al.			
	AF	2001/0006255 A1	07/2001	Kwon et al.	257	751	
	AG	2001/0006839 A1	07/2001	Yeo	438	435	
	AH	2001/0046753 A1	11/2001	Gonzalez et al.	438	424	
	AI	2002/0004284 A1	01/2002	Chen	438	427	

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AJ						
	AK						
	AL						

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
	AM		Disclosed Anonymous 32246, "Substrate Contact with Closed Bottom Trenches", Research Disclosure, Feb. 1991, 1 page.
	AN		Hausmann et al., <i>Rapid Vapor Deposition of Highly Conformal Silica Nanolaminates</i> , 298 SCIENCE 402-406 (October 11, 2002)
	AO		Miller et al., <i>Self-limiting chemical vapor deposition of an ultra-thin silicon oxide film using tri-(tert-butoxy) Silanol</i> , 397 THIN SOLID FILMS 78-82 (2001).
EXAMINER		DATE CONSIDERED	
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		FILING DATE October 16, 2003	GROUP 2812

U.S. PATENT DOCUMENTS							
*Examiner's Initials		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	10/931,524		Sandhu			08/31/2004
	AB	10/615,051		Vaartstra			07/07/2003
	AC	10/655,699		Derderian et al.			09/05/2003
	AD	10/806,923		Li et al.			03/22/2004
	AE						
	AF						
	AG						
	AH						

EV372470863

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AI						

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
	AJ		Hausmann et al., "Catalytic vapor deposition of highly conformal silica nanolaminates", Department of Chemistry and Chemical Biology, Harvard University, May 14, 2002, pp. 1-13.
	AK		Klaus et al., <i>Atomic Layer Deposition of SiO₂ Using Catalyzed and Uncatalyzed Self-Limiting Surface Reactions</i> , 6 SURFACE REVIEW AND LETTERS, Nos. 3 and 4, pp. 435-448 (1999).
	AL		
	AM		
EXAMINER		DATE CONSIDERED	
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